

# **CRITERIA TO DETERMINE THE PUBLIC HEALTH VALUE OF VACCINE**

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## **PUBLIC HEALTH FACTORS:**

- Vaccine effectiveness
- Accessibility of target population (disparities)
- Disease treatment options
- Alternative prevention methods
- Disease prevalence and incidence
- Transmission risk
- Outbreak risk
- Percentage of population to be immunized to achieve herd immunity
- Morbidity (short and long-term disability)
- Mortality
- Change in disease incidence due to vaccine uptake
- Change in vaccine demand based on disease incidence

## **ECONOMIC FACTORS:**

- Direct Costs
  - Vaccine
  - Number of Doses Needed
  - Distribution
  - Storage and Handling
  - Administration
- Opportunity cost
  - Time lost from work to obtain vaccine
  - Time lost to care for individuals with disease
  - Lost opportunity to use vaccine funds for other resources
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- Systems cost
  - Data entry/record keeping (medical practices, schools, child care, public health)
- Cost effectiveness
- Cost/Benefit
- Outbreak response cost
  - Disease treatment cost
- Schools
  - School loss of income due to absenteeism

**OTHER CONSIDERATIONS:**

- Ease of use (how the vaccine will be administered)
- Supply/availability
- Public perception of
  - need
  - disease risk
  - vaccine adverse event risk
- School entry required

**IMPLICATIONS OF SYSTEM CHANGE**

- Logistics of limiting doses purchased (cut-off by antigen or age cohort)
    - Determining patient eligibility
    - Educating providers on methods/procedures
  - Risk of rescinding state-supplied vaccine
  - Effect on immunization coverage rates
  - Loss of educational opportunity due to absenteeism
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